

**University of Massachusetts**  
(INCORPORATED)

NOT A STATE UNIVERSITY

**BULLETIN OF  
PREMEDICAL AND PODIATRY COURSES**

**1936-1937**

**CAMPUS  
WALTHAM, MASSACHUSETTS**

**ADMINISTRATION BUILDING  
415 NEWBURY STREET, BOSTON, MASSACHUSETTS**

**CLINICAL DEPARTMENT  
OTIS AND FOURTH STREETS, CAMBRIDGE, MASSACHUSETTS**

**JANUARY, 1936**

# CALENDAR

1936

JANUARY 6	Monday. Classes resumed.
FEBRUARY 22	Saturday. Washington's Birthday. A holiday.
APRIL 6 TO 11	Monday to Saturday. Third installment of tuition due.
APRIL 6 TO 11 inclusive	Spring recess.
APRIL 13	Monday. Classes resumed.
APRIL 19	Sunday. Patriot's Day.
APRIL 20	Monday. A holiday.
MAY 30	Saturday. Memorial Day. A holiday.
JUNE 13	Session ends.
SEPTEMBER 7 TO 12 inclusive	Monday to Saturday. First installment of tuition due.
SEPTEMBER 14 TO 19 inclusive	Monday to Saturday. Examinations for the removal of conditions.
SEPTEMBER 21	Monday. Classes begin.
OCTOBER 12	Monday. Columbus Day. A holiday.
NOVEMBER 11	Wednesday. Armistice Day. A holiday.
NOVEMBER 26 TO 28	Thursday to Saturday, inclusive. Thanksgiving recess.
NOVEMBER 30	Monday. Classes resumed.
DECEMBER 21 TO 26 inclusive	Monday to Saturday. Second installment of tuition due.
DECEMBER 19, 1936 TO JANUARY 2, 1937	Christmas recess.
JANUARY 4, 1937	Monday. Classes resumed.
FEBRUARY 22	Monday. Washington's Birthday. A holiday.
APRIL 5 TO 10	Monday to Saturday. Third installment of tuition due.
APRIL 5 TO 10 inclusive	Spring recess.
APRIL 12	Monday. Classes resumed.
APRIL 19	Monday. Patriot's Day. A holiday.
MAY 30	Sunday. Memorial Day.
MAY 31	Monday. A holiday.
JUNE 12	Session ends.

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## TRUSTEES

FRANK L. WHIPPLE, A.M., B.D., M.D., *President*  
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## FACULTY

### *English Language and Literature*

C. RUGGLES SMITH, A.B., A.M., B.LITT., Harvard, Columbia  
REV. HERBERT HITCHEN  
HOWARD C. GALE, A.A., B.T., M.D., Tufts, Middlesex

### *Classical and Romance Languages*

JOSEPH I. CHESKIS, A.M., Ph.D., Harvard  
FRANK L. WHIPPLE, A.M., B.D., M.D., Dartmouth, Andover, Tufts

## HISTORY

CHARLES A. P. McAREE, A.B., A.M., Catholic University, Harvard

## GOVERNMENT

PAUL J. McDONALD, LL.B., Boston University  
JOHN M. RUSSELL, A.B., LL.B., Catholic University, Harvard

## PHILOSOPHY

HENRY E. OXNARD, A.M., LL.B., B.D., Harvard, Andover

PSYCHOLOGY

HORATIO S. CARD, A.M., M.D., Bowdoin

PHYSICS

FRANCIS RICHARDSON, B.Sc., M.D., Harvard, Illinois

HAROLD M. KAPLAN, A.B., Ph.D., Dartmouth, Harvard

CHEMISTRY

SOLOMON H. GORDON, B.Sc., Ed.M., Massachusetts Agricultural,  
Boston University

EUGENE L. FISHER, A.B., A.M., Harvard, Columbia

BIOLOGY

HAROLD M. KAPLAN, A.B., Ph.D., Dartmouth, Harvard

PHYSIOLOGY

ABRAHAM J. WEKSTEIN, M.D., Middlesex

ANATOMY

ROBERT FULTON CARMODY, M.D., Middlesex

PATHOLOGY

HUGO GUIDOTTI, M.D., Middlesex

PODIATRY

HIRAM B. DONALDSON, *History of Podiatry*

THOMAS FORD, *Clinical Podiatry*

WALTER M. HORNE, *Applied Podiatry*

HERBERT W. JOHNSTON, *Shoe Fitting, Mechanics*

WILLIAM D. COGAN, *Applied Podiatry*

EDWARD FOLEY, *Clinical Podiatry*

CHARLES A. GIRVAN, *Physical Therapy*

## SURGERY

VINCENT J. CANZANIELLO, M.D., Middlesex

## DERMATOLOGY

JACOB SPITZ, M.D., Tufts

## HISTOLOGY

JOSEPH I. CHESKIS, A.M., Ph.D., Harvard

MORRIS FISHGAL, M.D., Middlesex

## MEDICAL JURISPRUDENCE

C. RUGGLES SMITH, A.B., LL.B., A.M., B.Litt., Harvard, Columbia

## ORTHOPEDICS

HERBERT W. JOHNSTON

WILLIAM WEISMAN, M.D., Middlesex

# COURSES OF INSTRUCTION

## ANATOMY

### **Anatomy**

Anatomy is the ground work for study and practice. The structure and function of the living body, illustrated by stereoscopic projection and radiography studies of the body in action. A special series devoted to pediatric anatomy, reviewing the rapid anatomical changes of infancy and childhood. The growth of the body, of its parts and organs, receives special attention.

Dissection of the adult body, emphasizing facts in human anatomy necessary for diagnosis and treatment, with informal supplementary conferences through the course.

## BIOLOGY

### **1. General Biology.**

The course is designed to acquaint the student with the principles of various life processes as illustrated in the animal type of body. In addition, attention is given to problems of development, genetics, and evolution. A brief study of plant material concludes the course. Laboratory.

### **2. Mammalian Anatomy and Physiology.**

A course involving a detailed consideration of the gross structure and relation of organs and systems based on the study of the cat supplemented by human material. Laboratory.

### **3. Histology.**

The greater part of the course is devoted to the study of minute structure and functional relation of mammalian tissues with special reference to the human body. As a preliminary, there is a detailed study of cell structure and karyokinesis together with its role in heredity. Laboratory.

### **4. Embryology.**

Spermatogenesis, oogenesis, growth and development of vertebrate tissues, organs and systems constitute the subject matter. The study is based on the frog and the chick. Laboratory.

## CHEMISTRY

### **1. General Inorganic Chemistry.**

A study of the non-metal and metallic elements and their compounds. Laboratory course to accompany.

### **2. Organic Chemistry.**

Study of the compounds of carbon, including both aliphatic and aromatic derivatives. Laboratory course to accompany.

### **3. Qualitative Analysis.**

A course in the detection and separation of the common acids and bases. Laboratory course to accompany.

### **4. Quantitative Analysis.**

A study of the gravimetric and volumetric determination of the common elements and radicals. Laboratory course to accompany.

**5. Biochemistry.**

Study of the composition, reactions and products of living material. Laboratory course to accompany.

**6. Toxicology.**

A course in the detection of and identification of poisons. It includes the action and use of antidotes. To be taken concurrently with Practice of Medicine and Medical Jurisprudence. Laboratory course to accompany.

**7. Chemistry in Diagnosis.**

An advanced course covering the chemical methods used in laboratory diagnosis. Laboratory course to accompany.

## DERMATOLOGY AND SYPHILOLOGY

**Dermatology.**

During the early part of the course, the student is taught to observe symptoms accurately and describe them correctly. The histopathology, diagnosis and treatment of diseases of the skin are discussed in a systematic manner. Radium and roentgenray therapy as applied to diseases of the skin are emphasized.

**Syphilology.**

A special series of lectures and recitations deal with the various manifestations of syphilis. The clinical and laboratory procedures used in its diagnosis and treatment are discussed. The pathological conditions occurring in patients are demonstrated to bring out the important points given in the didactic lectures.

## ECONOMICS

**1. Principles of Economics.**

Fundamental concepts. Development of the science. Value, its nature, measure, and the general law. Factors of production. Distribution; profits, rent, interest, wages, the labor problem. Exchange: money, credit, banking, transportation, insurance. Public ownership. Trusts.

**2. Advanced Economics.**

Applications of the principles of economics; the history of economic thought; the economic history of the United States. No single text is used, the student being required to read five or six texts concerning the foregoing topics, in preparation for a comprehensive examination. Readings from current periodicals and visits, when possible, to local financial institutions, large offices and industrial plants.

## ENGLISH

**1. History of English Literature.**

An adequate consideration of English Literature from its beginnings to the present day. Assigned readings, interpretations, and reports.

**2. Rhetoric and Composition.**

A study of the laws of composition with reference to sentence structure, development of the paragraph, diction, and the qualities of good writing. Frequent short themes required.

**3. Advanced Composition.**

A course in theme writing and technical reference procedure. Narration, description and exposition are fully treated.



**4. American Literature.**

A survey and critical study of the literature of America, supplemented with the biographies of American authors and the understanding of the periods into which the writings are generally grouped. Emphasis is placed upon the literature itself and frequent reports.

## FRENCH

**1. Elementary French.**

This course is intended for those who begin French in college. Principles of French Grammar, practice in reading, speaking and writing French. Its aim is to enable students to read ordinary French with ease, to understand to some extent the language when spoken.

**2. Intermediate Course.**

This course presupposes two years of High School French or the equivalent of elementary French. Much attention is given to the essential principles; rapid reading and composition. French is made the language of the classroom.

**3. Third Course.**

Review of French Syntax. Oral and written composition. Conversation, reading of classical and modern authors.

**4. Advanced Course.**

Advanced Course. Century Prose and Drama. Review of French Syntax. Oral and written composition. *Histoires de la Littérature Française*. Sixteenth and Seventeenth centuries.

**5. Advanced Course**

*Histoire de la Littérature Française*. Eighteenth Century to present day.

## GERMAN

**1. Elementary German.**

Fundamentals of grammar, reading and composition. Drill in conversation.

**2. Intermediate Course.**

Grammar and composition; oral and written exercises. Reading of German prose.

**3. Advanced German.**

Reading of selected texts in prose and poetry. Advanced prose composition.

**4. Scientific German.**

Reading of technical and scientific German.

## GOVERNMENT

**1. Constitutional Government.**

A study of the historical development of government in the United States, and a comparison with the governmental structures of modern European nations.

**2. Municipal Government.**

A discussion of the problems of modern city government, with emphasis on public health administration.

## HISTOLOGY

**Histology.**

The various tissues and organs of the body are studied from the developmental point of view so that their gradual differentiation from the embryonic to the adult form is taken

up. Since function and structure cannot be separated in the consideration of the microscopic appearance of tissues and organs, their chief physiological aspects are briefly considered. Laboratory course to accompany.

## HISTORY

**1. Historical Point of View.**

This course consists of an analytical survey of the History of Civilization.

**2. Political and Social History of Modern Europe from 1500 to 1815.**

A fundamental study of the history of Modern Europe from the period of the rise of the national monarchies of Western Europe to the close of the Napoleonic Era.

**3. Political and Social History of Modern Europe from 1815 to 1934.**

A fundamental study of the history of Modern Europe from the close of the Napoleonic Era to the present time.

**4. Political and Social History of the United States from 1492 to 1828.**

A fundamental study of the history of the United States from the Era of European Beginnings in America to the opening of the Jacksonian Era, with a survey of European history to give sufficient background for the proper understanding of the study.

**5. Political and Social History of the United States from 1828 to 1934.**

A fundamental study of the history of the United States from the opening of the Jacksonian Era to the present time, continuing the survey of European history for background.

## LATIN

**1. Latin for Premedical Students.**

A course for students who intend to study Medicine.

## MATHEMATICS

**1. College Algebra.**

Linear, quadratic and algebraic equations. Functions and graphical methods. Mathematical induction, permutations and combinations, determinants, etc.

**2. Analytic Geometry.**

The fundamental properties of conic sections and a brief introduction to the geometry of three dimensions.

**3. Differential Calculus.**

Variables and functions; limits; differentiation; geometrical and physical applications of the derivative; maxima and minima; differentials; rates; indeterminate forms; expansion of functions in series.

## MEDICAL JURISPRUDENCE

**Medical Jurisprudence.**

In this department students receive instruction in the legal aspects of medicine. In general the course covers the following subjects: Technique of medico-legal post-mortem examination; toxicology from the chemical and legal points of view; biological aspects; legal regulation of medical practice, rules of evidence, etc.; relations of the medical graduate to the community. In order to set forth the various points of view of this subject, this course is given by several lecturers.

## **PATHOLOGY**

### **Pathology.**

The course is designed to teach the fundamental principles of abnormal morphology, physiology, and chemistry, and consists of laboratory work, lectures, demonstrations, and experimental pathology. The laboratory work is based upon a selected collection of microscopic slides. Gross pathology is taught with fresh and museum specimens and by demonstrations of clinic patients, showing the pathology of the living. Lectures are used chiefly to correlate the physiologic with the anatomic changes which occur in cells, tissues, organs, and systems, and to introduce important recent advances not found in textbooks.

## **PHILOSOPHY**

### **1. Introduction to Philosophy.**

A survey of the field. A development of the principles of philosophy in the form of projects. Fundamental problems are first presented, the different positions taken by successive thinkers, outlined and discussed, and the student is encouraged and assisted to make up his mind on the theory which he shall accept.

### **2. History of Modern Thought.**

Exposition, appreciation and criticism of Descartes; his method, influence on later thought. Malebranche, Spinoza, Leibnitz, Hobbes, Locke, Berkeley, Hume. Exposition, appreciation and criticism of Kant; influence of his philosophy. Fichte, Schelling, Hegel, Schopenhauer. Herbert Spencer. Nietzsche. Neo-Scholasticism.

## **PHYSICS**

### **1. General Physics.**

Fundamental course in Mechanics, Heat, Magnetism, Electricity, Sound and Light. Laboratory.

### **2. Elementary Physics.**

Descriptive lectures in the elements of physics. Laboratory.

### **3. Heat, Sound, Light.**

Lectures and problem work in the above fields, for pre-medical students. Laboratory.

### **4. Light.**

This course covers the general field of geometric and physical optics, with an introduction to spectroscopy. Laboratory.

### **5. Recent Developments in Physics.**

Review of theories of magnetism and electricity. Alternating and high frequency current, electromagnetic waves, discharge of electricity in gases, theory of electrons, thermionics, photo electricity, ultra violet radiation, x-rays, radioactivity, with special application of the electro-magnetic spectrum, radioactivity and high frequency currents to medicine. Laboratory.

## **PODIATRY**

### **Podiatry.**

Treatment of general foot ailments by medical, mechanical, and surgical means. The use and care of instruments. Asepsis, antisepsis, foot hygiene, local anaesthesia, heloma, ingrown nail, and all other subjects relating to chiropody not covered in other courses of the podiatry curriculum.

## POLITICAL SCIENCE

### **Political Science.**

Nature and scope, methods, nature of the State, elements and attributes of the State, The State, Nation and nationality, sovereignty, theories of the State, forms and types of States, associations and unions of States.

## SOCIOLOGY

### **1. Introduction to Sociology.**

Nature, postulates, and field of Sociology. Heredity and environment. Social origins based on findings of anthropology. The family and the state. Property. Delinquency. Crime. Pauperism. Insanity. Unemployment. Social Service. Selected Readings.

## PREMEDICAL COURSES

THE University of Massachusetts, incorporated under the laws of the Commonwealth of Massachusetts in 1917, offers a two year premedical college course for students who wish to prepare themselves to enter upon the study of the science of medicine. The course covers two years of nine months each. The subjects prescribed are Chemistry, Physics, Biology, English, French or German, Latin and Greek Derivatives, Anatomy, and Physiology. In addition to classroom instruction in the foregoing subjects, students are required to complete a series of laboratory courses in Chemistry, Physics, and Biology, including Protozoology and Comparative Anatomy.

It is the policy in the premedical courses to bring the prospective medical student in contact with the actual study of medicine two years before he is ready to enter medical school, and the premedical curriculum accordingly includes introductory courses in Anatomy and Physiology. These courses are given by members of the medical school faculty, and are supplemented by three hours a week of elementary clinical instruction and observation at the Middlesex Hospital.

## ADMISSION REQUIREMENTS

Premedical courses are co-educational and the admission requirements include high school graduation or its equivalent in properly certified units of high school work corresponding to the standard required by law governing the admission of physicians to the practice of medicine in Massachusetts. Each student must present satisfactory character references, and must undergo a physical examination to determine his fitness to engage in the concentrated study necessary for the premedical course. Students who have completed a year of premedical study at some other college may be admitted to advanced standing to the second year premedical class. Their status will be determined by credentials certifying the college work they have completed, and by examinations.

## PREMEDICAL FEES

Verification . . . . .	\$10	Payable with application
Matriculation and Reservation . . . . .	\$25	Payable upon matriculation
Tuition . . . . .	\$250	Payable in three installments (See calendar)

1st Installment \$100      2nd Installment \$100      3rd Installment \$50

Fees are payable only by postal money order. Remittances must be made by mail to University of Massachusetts, 415 Newbury Street, Boston.

Any student whose installment of indebtedness to the college remains unpaid on the date fixed for final payment is deprived of the privileges of the college until he is reinstated. Reinstatement is obtained only by consent of the Board of Trustees after payment of all indebtedness and a reinstatement fee of \$10.00.

## SCOPE OF COURSE

The premedical course is designed to train the student in the fundamental natural sciences underlying the science of medicine; to broaden the intellectual range of the student with a certain proportion of purely cultural study; and to introduce the student to the elementary subjects of the medical curriculum. A successful completion of the two year premedical college course satisfies the academic requirements for admission to the Middlesex College, Department of Medicine.

## BUILDINGS AND FACILITIES

The premedical courses are given in the classrooms and laboratories, located at 405-423 South Street, Waltham. The clinical phases of premedical instruction are given in the amphitheatre of the Middlesex Hospital in East Cambridge.

All communications should be addressed to the Administration Building, 415 Newbury Street, Boston, and new students should report at this building for a personal interview with the Registrar.

## PODIATRY AS A PROFESSION

BY legislative enactment Podiatry (Chiropody) has been placed upon a professional basis in all but a few of the states. The practice of the profession is regulated and controlled in almost every state by Boards of Registration. A practitioner must prove to the satisfaction of these state boards that he possesses certain educational and technical qualifications, before he may be licensed to practice. Thus Podiatry has become a profession and its practice must be conducted under regulations similar to those controlling the practice of medicine. With these changes comes the demand for higher education for Podiatrists, the passing of the old method of private teaching and the requirements that Podiatrists be educated in their profession in Schools of Podiatry (or Chiropody). The established and increasing field of work usually given over to Podiatrists, the need of trained Podiatrists in the military and naval services of the country, the increasing demand for Podiatrists for service with the great industrial and commercial establishments, the improved conditions and higher standards under which the work is done, through higher education and state regulation, all tend to make Podiatry an attractive and remunerative field for young men and women who have the ambition and the ability to enter professional life.

## REQUIREMENTS FOR ADMISSION

The requirements for admission to the first year class of the Department of Podiatry include high school graduation or its full equivalent of at least fifteen units of high school work, evaluated by examination or by properly certified credentials.

It is desirable that applicants for admission should have completed a high school course including four units of English, three units of mathematics, two units of French or German, and one unit each of Latin, history, general science, physics, chemistry, and biology. These high school subjects are recommended rather than required, and students who have graduated with an equal number of units differently distributed may be required to make up any deficiency during the first year of their professional course.

Students who have not completed a full four year high school course may enroll in the college high school course. Instruction in this course includes the subjects of biology, chemistry, physics, English, Latin, French or German, anatomy, and physiology. This preparatory course is designed to enable a student to complete his secondary school education and at the same time to get a thorough grounding in the basic sciences. The course cannot be taken simultaneously with the first year of the professional course.

## ADMISSION OF STUDENTS

The school is coeducational.

New students desiring to enter the school are required to make application upon the blanks furnished by the school.

A personal photograph 4 x 6 inches, and a fee of \$10 must accompany the application. This fee, which is not returnable, is for the verification of their statements of preliminary education and their references.

Acceptance of students is for one year only (the school year indicated on the application blank), and the School in no way binds itself to accept the student for further instruction.

Applications for readmission to each subsequent year of the course must be made in writing on blanks supplied by the School.

The trustees reserve the right to refuse admission or re-admission to any student regardless of his educational qualifications, without making known the reasons for their adverse decision, and without giving any explanation in regard thereto.

## CLINICAL INSTRUCTION

The most important single course in the curriculum is clinical podiatry, for it is only in the practical application of the principles of podiatry as taught in the clinic that the student may properly be trained to enter this professional field.



The Foot Clinics of Boston, operated by the Freeman L. Lowell Memorial Hospital and Dispensary at 415 Newbury Street, afford a wealth of clinical material, offering podiatry treatment to several thousand patients each year. This clinic provides free treatment to the poor and unemployed.

The clinic is finely equipped and has accommodations for the treatment of fifty to seventy-five patients nightly. So that their practical instruction may cover every phase of podiatry, the students are assigned in rotation to the various departments of the clinic, including the Diagnostic Clinic, where new patients are first examined; the Orthopedic Clinic, where the more serious mal-formations of the feet are treated; the Physio-therapy Clinic, which is equipped with modern electrical apparatus for the relief of foot ailments; the Children's Clinic, maintained for the periodic examination and treatment of school children; and the male and female divisions of the general podiatry clinic.

The Middlesex Hospital at Fourth and Otis Streets, Cambridge, is affiliated with the University of Massachusetts and provides facilities for the care of acute or operative cases and for X-ray diagnosis. The students may follow and observe the treatment of podiatry patients in the various departments of the hospital.

## COURSE OF INSTRUCTION

The course of instruction is three years. This is in accordance with the prevailing policy of schools of podiatry throughout the United States. Sessions begin regularly about the middle of September and continue to June. Courses are offered in a six-week Summer Session for the benefit of students with conditions to remove.

## PODIATRY FEES

Verification . . . . .	\$10.00	Payable with application
Matriculation and Reservation . . . . .	25.00	Payable upon matriculation
Tuition . . . . .	225.00	Payable in three installments (See calendar)
1st installment \$75	2nd installment \$75	3rd installment \$75



